

Supplementary table 1. Course Design, Learner Challenges, Examples of Reflections, Recommendations for Faculty Development

Session	Description	Learning objectives	Challenges	Examples of reflections after session	Recommendations for faculty development
Pre-brief, run, & debrief a scenario	Pre-brief participants (peers in the course) for a simulation session, conduct and debrief the simulation; experience expert debriefing-the-debriefing, and peer feedback on scenario design	Prepare and demonstrate a pre-brief and debrief Prepare and run a simulation	<p>Dealing with the mismatch between the espoused value that curiosity and positive regard for learners is an effective teaching strategy, but in practice judging the person (not just their action) negatively</p> <p>Directly experiencing why it is difficult to meet an expected standard in simulation.</p> <p>Noticing that though one espouses that honest, direct critique is good, in practice, frequently camouflaging critique behind leading or guess-what-I-am thinking questions</p>	<p>“Honesty makes for more productive learning”</p> <p>“I’m curious to know why I’m not more curious”</p> <p>“Perfectly knowing your scenario helps you debriefing it”</p> <p>“Have just experienced being in the hot seat of the simulated debriefing and not feeling like my feelings were validated and therefore being too distracted to concentrate on how to get better, I realize the overwhelming importance as a debriefer to maintain an engaging context for learning - maintaining / showing the basic assumption, validating participants' feelings, sharing my point of view”</p> <p>“Participants are very brave when they open themselves to critique from peers. It speaks to their dedication”</p> <p>“Remember the safety contract”</p> <p>“Explicitly stating what you want to talk about is so powerful”</p> <p>“I love being a participant and making all the mistakes that I call my trainees out for making - makes me more empathic”</p>	<p>Experience the vulnerability of being a participant and the impact of various instructor actions¹</p> <p>Name and explore one’s own unpleasant feelings and within a ‘safe container’ for learning.²</p>
Learning pathway grid (LPG)	A structured post-hoc debriefing analysis to identify what worked and what did not during a debriefing with a	Diagnose the mismatch between intentions of the debriefer and the impact on the learner ⁴	Realizing and understanding that good intentions (e.g., to help learners do better in the future) during debriefings can backfire in baffling and unforeseen ways (e.g., learners become defensive or angry) and identifying	<p>“Wow, that was transformational for me. I have to take the risks to help learners reach their potential”</p> <p>“Need to be more up front with personal opinions. Need to address the elephant in the room”</p>	Create reflection tasks that reveal one’s own inconsistency as a positive driver of learning ⁵ .

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	particular focus on the debriefer's frames and assumptions. Practice reframing, rehearse alternative ways of talking to enhance future debriefings ³ . Developed by Action Design (www.actiondesign.com)	Recognize the relationships between debriefer's frames, actions and results that occur in the debriefing Compose new frames and actions that align the intentions of the debriefer with the impact on the learner	reframing as way to match goals and the effect	<p>"I need to work on staying curious instead of pretending to be curious. I need to be aware of my own frames"</p> <p>"It helps me a lot to make a strong difference between frames, actions and results"</p> <p>"It's ok to pause and try to reframe when you begin to feel like the conversation is getting confusing or not moving in the direction you'd like. Helps to reveal your own frame or to "create" what's going on and why you'd like to redirect"</p> <p>"LPG is humbling but empowering at same time"</p>	
Simulated debriefing	Debrief a simulated case ^{6,7} ; the case is provided by a recording of a clinical scenario. Group members then assume roles of people in the recording and one person debriefs them. Faculty or peers debrief the debriefing.	Employ existing debriefing skills to help participants to reframe their current thinking and devise new action for the future Demonstrate offering honest yet nonthreatening feedback Tolerating the discomfort of being honest when conveying an evaluation Demonstrate curiosity via asking	Dealing with the mismatch between the espoused value that curiosity and positive regard for learners is an effective teaching strategy, but in practice judging the person (not just their action) negatively	<p>"Give your opinion - take a stand even if your opinion in that theme is no right answer"</p> <p>"Honesty works both in debriefings and conversations. Hypocrisy doesn't work, and it's damaging"</p> <p>"As a debriefer, it's hugely important to share my own frame with participants - let them know my point of view and make a good judgment in the spirit of helping participants learn / get better"</p> <p>"Being curious - basement of debriefing"</p> <p>"Talk less, listen more"</p> <p>"Work on actively listening to catch frames and pursue further"</p> <p>"Observing others debrief gives you tools to improve debriefings"</p>	<p>Experience the contrast (as a learner) of leading questions versus direct feedback</p> <p>Receive feedback on one's debriefing from expert observers, peer participants as well as self-assessment^{8,9}</p>

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		open-ended question		<p>“Practice really helps me. Listening to others practice is surprisingly useful ...”</p> <p>“I just love this. It’s painful but a great learning experience”</p>	Experience differences between instructor-centered vs. learner-centered debriefing actions ¹⁰
Lecture-based inputs	Provide overview over relevant topics for advance simulation instructors (e.g., on difficult debriefing situations, how to reframe oneself in the moment)	Describe key theories and empirical findings relevant to the design and development of SBE	Dealing with the mismatch between the espoused value that curiosity and positive regard for learners is an effective teaching strategy, but in practice judging the person (not just their action) negatively	<p>“Share your vulnerabilities!”</p> <p>“It’s all about frames ... My frame, their frame”</p> <p>“Reframing is a useful self-rescue”</p> <p>“By actually taking the time to reflect in this session, it emphasized the importance of reflection, and will remind me to reflect back at home/basecamp”</p>	Allow instructors to compare and contrast their subjective experience of difficult debriefing situations across multiple sessions and instructors
Advancing learners’ projects (elective)	Learner-driven “office hours” with faculty and peers consulting on learners’ SBE projects	<p>Describe the value, organizational barriers and facilitators to advancing one’s project</p> <p>Adapt proposed approach one’s SBE project at home institution</p>	Translating simulation-based facilitation skills that require identifying and exploring other people’s frames to “real world” goals	<p>“Oh man, I’ve bitten off way more than I can chew with respect to my project to develop an assessment tool for formative trainee assessment. I will need to really narrow down the skill/behavior I want to assess and get loads of input from others”</p>	Practice applying education-based needs assessment to “real world” projects to understand other people’s goals

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